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Hodgson Quarries and Plant Pty Ltd

Flora and Fauna Management Plan for the Sand Quarry, Roberts Rd Maroota, NSW

Prepared by:

VGT Pty Ltd & NGH Environmental

in conjunction with:

Hodgson Quarries and Plant Pty Ltd

Hodgson Quarries and Plant Pty Ltd

Flora and Fauna Management Plan for the Sand Quarry, Roberts Rd Maroota, NSW

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Martin Hodgson 14/12/2017

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Date	
1/6/2016	R0 LT Draft for Client Review
20/06/2016	R1 Incorporating client changes
22/11/2016	R2 Incorporating DPI changes
14/12/2017	R3 Updated for OEMP 2017

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Table of Contents

Section 1.	Introduction	1
1.1.	Site Description	1
1.2.	Activities	1
1.3.	Scope and Context	1
Section 2.	Objectives	2
Section 3.	Targets	2
Section 4.	Approval and Licencing Requirements	2
Section 5.	Consultation	3
Section 6.	Existing Baseline	4
6.1.	Flora	4
6.2.	Fauna	4
Section 7.	Management and Mitigation Measures	5
7.1.	Flora Management	5
7.2.	Fauna Management	5
Section 8.	Performance and Completion Criteria	6
Section 9.	Monitoring Program	9
9.1.	Monitoring Approach	9
Section 10.	Annual Reporting	13
Section 11.	Emergency Response	13
Section 12.	Responsibility	13

Appendices

Appendix A. Consultation and Communication

Section 1. Introduction

1.1. Site Description

Hodgson Quarries and Plant Pty Ltd (the client) operate a sand quarry on Roberts Road at Maroota, NSW. The site comprises lots 1 and 2 DP 228308 and lot 2 DP 312327 in The Hills Shire Council (see Figure One in the OEMP). The development application number 267-11-99 was for extraction and on-site processing of sand, clay, and pebble; and construction of a bund wall.

The development has been in operation continuously since the 1970's. A modification to the consent approved in March 2016 has triggered a review of the Operational Environmental Management Plan, and all management sub-plans included within the OEMP. This Flora and Fauna Management Plan is intended to be included in the OEMP.

1.2. Activities

The site has been operational since the 1990's and construction of a water supply dam commenced in or around the 1970's. The site was formerly known as Sun-A-Rise Quarry, where construction of a water supply dam commenced around 1970. Consent from the Minister for Urban Affairs and Planning was granted for extraction and processing of sand, clay and pebble material in 2000 and the continued construction of the dam which is located on the northern boundary of the site. The original consent was modified in November 2000, August 2015 and March 2016. Hodgson Quarry and Plant Pty Ltd (the client) took over operations on the site in 2004. The site has consent to extract until 31st May 2025, with rehabilitation to be completed within six months of completion of extraction.

Sand and sandstone are extracted using excavators and/or dozers. The material is then washed, stockpiled and transported. The hours of operation are:

- Construction: 7:00am to 6:00pm Monday to Friday
- Extraction and Processing: 7:00am to 6:00pm Monday to Friday and 7:00am to 1:00pm Saturdays
- Vehicle loading: 6:00am to 6:00pm Monday to Friday and 6:00am to 1:00pm on Saturdays.

No works occur on Sundays or Public Holidays. Truck movements are limited to 100 movements per day (50 laden truck movements) and 20 movements per hour (10 laden truck movements).

1.3. Scope and Context

This Flora and Fauna Management Plan has been prepared by VGT Pty Ltd in conjunction with NGH Environmental Pty Ltd as part of the Operational Environmental Management Plan (OEMP) for the site. This version has been updated for inclusion in the 2017 OEMP.

Section 2. Objectives

To protect known threatened flora species on the site and ensure correct procedures are applied in the event of other threatened flora or fauna species being located on the site.

Section 3. Targets

Inspections of site flora and fauna to show minimal impacts from operations.

Consider the post extraction land use in the management and maintenance of conserved and rehabilitated vegetation.

Section 4. Approval and Licencing Requirements

Development consent issued by Minister for Urban Affairs and Planning (File No. S98/00772) issued 31 May, 2000, as modified 29/11/2000, 18/8/2015, and 18/3/2016.

In particular, this report will address the following conditions from Schedule 2:

"20. The Operational EMP shall include, but not be limited to:

(f) the Flora and Fauna Management Plan (Condition 55);

"55. The Applicant shall prepare a Flora and Fauna Management Plan as part of the EMP. The Plan shall be prepared in consultation with National Parks and Wildlife Service and Council, and shall:

(a) describe the characteristics and location of species, populations and communities that the proposal may impact upon;

(b) consider the feasibility and practicality of salvaging trees removed for the development for relocation to conserved or rehabilitated areas, for the purposes of reconstructing habitat for ground fauna

(c) contain a program for the active management and maintenance of all conserved and rehabilitated vegetation (as detailed in the EIS and required under this Consent) including consideration of:

- post-extraction land use objectives for the site;
- utilisation of local endemic species or species naturally occurring in the Maroota area;
- planting around the conservation area to further buffer this area and enhance its long term viability as a bushland ecosystem;
- connection of existing areas and future areas of revegetation to form a network of wildlife corridors throughout site and to adjoining lands to facilitate species recruitment through natural immigration;
- provision of rocks of varying sizes to provide refuge and basking sites for herpetofauna;
- fencing of revegetated areas to prohibit grazing by stock; and
- provision of artificial nest boxes for a range of arboreal fauna.

(d) mitigation measures to be implemented should operations compromise the significant flora and fauna communities identified in the EIS;

(e) an ongoing monitoring program of the existing and proposed revegetated areas to assess their floristical structure and diversity, resilience and robustness to disturbance, and fauna species diversity. The information obtained from the monitoring shall be used to guide future revegetation and management efforts; and

(f) include detailed performance and completion criteria for evaluating the performance of the flora and fauna management measures and rehabilitation of the site, including triggers for any necessary remedial action. "

Management Plan Requirements

65. The Applicant shall ensure that the management plans required under this Consent are prepared in accordance with any relevant guidelines, and include:

(a) detailed baseline data;

(b) a description of:

- the relevant statutory requirements (including any relevant approval, licence or lease conditions);
- any relevant limits or performance measures/criteria;

- the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;

(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;

(d) a program to monitor and report on the:

- impacts and environmental performance of the development;

- effectiveness of any management measures (see c above);

(e) a contingency plan to manage any unpredicted impacts and their consequences;

(f) a program to investigate and implement ways to improve the environmental performance of the development over time;

(g) a protocol for managing and reporting any:

- incidents;

- complaints;

- non-compliances with statutory requirements; and

- exceedances of the impact assessment criteria and/or performance criteria; and

(h) a protocol for periodic review of the plan.

Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.

The full consent is given in Appendix A of the EMS.

Section 5. Consultation

The Flora and Fauna Management Plan has been prepared in consultation with National Parks and Wildlife Service (OEH) and Council. The OEH has also been consulted regarding the site and the Flora and Fauna Management Plan. A response was received in June 2016 stating that the OEH had insufficient resources to review the plan (see *Appendix A*). Hills Shire Council responded with the comments detailed in *Table 1* and included in *Appendix A*.

Table 1. Council Requirements

	Council Requirement	Where Detailed
1.	Additional information is required to be provided on Part (c), dot point 3, in regard to planting around the conservation area.	Detailed in the Landscape & Rehabilitation Plan 2017
2.	Additional information is required to be provided on Part (c), dot point 4, in regard to improving connectivity of existing and future vegetation. In this regard the information provided refers only to separation distances between vegetation and does not adequately address how areas will be linked, actions required to be undertaken such as additional planting, and on-going management.	Detailed in the Landscape & Rehabilitation Plan 2017
3.	Additional information is required to be provided on Part (d) in regard to on-going management in respect to timing and frequency and monitoring methods. The monitoring should be specific in respect to timing, frequency, time spent on the site, number of persons undertaking the monitoring, how the random meander techniques will be undertaken and similar.	Section 9

Section 6. Existing Baseline

The impacts on Flora and Fauna were investigated for the EIS (Nexus Environmental Planning Pty Ltd, November 1999). The latest modification did not result in any additional impacts on Flora and Fauna, and therefore the original Assessment of Impacts on Flora and Fauna, prepared in August 1999 remains the baseline study, and describes the characteristics and locations of species, populations and communities that may be impacted on. The 1999 report identified *Acacia bynoeana* on the site, which have since been accepted as unlikely to be present. Conditions regarding this species have therefore been removed in this version of the Flora and Fauna Management Plan.

6.1. Flora

A strip of trees occurs along the southern fence line including White Stringybark, Grey Gum, Blue Mountains Mahogany, Red Bloodwood, Rough-barker Apple and Black She-oak. Blue Mountains Mahogany has regional conservation significance.

North of the site entrance is a stand of White Stringybark, White Mahogany and a few Blue Mountains Mahogany species.

A scrubby area north of the site entrance and the stand of trees contains Yellow Tea-tree, Tick Bush, Scale-rush, Kikuyu and Whisky Grass.

The rest of the quarry site is cleared with introduced pasture and herbs.

The remnant vegetation along the southern fence line (Old Northern Road) and to the north of the site entrance (Roberts Road) will be fenced or otherwise marked to prevent vehicle access.

Condition 55 b) of schedule 2 states that the feasibility and practicality of salvaging trees removed for the development for relocation to conserved or rehabilitated areas, for the purpose of reconstructing habitat for ground fauna should be considered. As shown in *Figure 2* of the EMS, there are no trees within the property that are to be removed for development purposes. The only trees within the site are located within the remnant vegetation conservation area therefore this will not occur on the site.

6.2. Fauna

Suitable habitat for native fauna is very limited on the site. There are no suitable tree hollows for bats, birds and arboreal mammals. The farm dams provide some habitat for waterfowl and frogs.

Section 7. Management and Mitigation Measures

It should be noted that a program for the active management of post extraction land use objectives and planting around the conservation area is discussed in the Rehabilitation Management Plan.

7.1. Flora Management

- Native plant species naturally occurring in the Maroota area are to be used in rehabilitation (Refer *Rehabilitation Plan*).
- Revegetated areas are to be fenced off to prevent stock entering. Fences are to be maintained and repaired when necessary.
- Existing vegetation along the southern fence line (Old Northern Road) and to the north of the site entrance (Roberts Road) is not to be cleared.
- Disturbance to existing native vegetation is to be minimised during the construction of the bund walls at the corner of Old Northern Road and Roberts Road.

7.2. Fauna Management

- Weeds, pests and feral animals are to be controlled.
- Rehabilitated areas are to be linked to existing and future areas of vegetation where possible to form a network of wildlife corridors (refer *Rehabilitation Plan*).
- Rocks of varying sizes are to be spread over rehabilitated areas to provide ground fauna habitat and refuge.
- Branches and logs of any trees cleared on the site are to be spread within the rehabilitation areas to provide habitat for ground fauna.
- Consideration to the provision of artificial nest boxes for a range of arboreal fauna will be given during the establishment of final rehabilitation areas.

Section 8. Performance and Completion Criteria

This section of the report was prepared by NGH Environmental. For details regarding planting and post-extraction land uses see the *Rehabilitation Plan*.

The performance and completion criteria outlined below will assist in:

- Identifying whether the management measures are being successfully implemented
- Identifying triggers when remedial actions would be required.

The nominated performance and completion criteria and triggers that will be used to assess the effectiveness of the management measures implemented are provided in *Table 2*.

Table 2. Performance and completion criteria and triggers to assess the effectiveness of flora and fauna management measures.

Management requirements	Management measures	Performance/completion criteria	Triggers for remedial action
Flora management	1. Native plant species naturally occurring in the Maroota area are to be used in rehabilitation.	1.1 Demonstrated use of native plant species naturally occurring in the Maroota used in all progressive revegetated and rehabilitated areas. 1.2 Low mortality of plants used in progressive revegetation with 75% becoming established 3 years.	1.3 Vegetation includes non-native species 1.4 Vegetation includes non-local species 1.5 High mortality rate of plants used in rehabilitated area with less than 75% becoming established 3 years after planting.
	2. Revegetated areas to be fenced off to prevent stock entering.	2.1 Installation of high durability fencing, with low maintenance requirements and suitable for excluding cattle and other livestock, to be installed prior to the completion of revegetation work areas.	2.2 Adequate fence has not been installed in a timely manner.
	3. Fences are to be maintained and repaired when necessary.	3.1 Fencing surrounding revegetated and rehabilitated areas are maintained in working condition.	3.2 Fences are in disrepair and not functioning
	4. Existing vegetation along the southern fence line (Old Northern Road) and to the north of the site entrance (Roberts Road) is not to be cleared and is to be fenced off to prevent vehicle damage.	4.1 Installation of fencing along the southern fence line and to the north of the site entrance completed during dewatering of the fines ponds and prior to the construction of the new access track. 4.2 Vegetation is retained	4.3 Fence has not been installed to protect the native vegetation 4.4 Clearing of native vegetation has been recorded during monitoring.
	5. Disturbance to existing native vegetation is to be minimised during the construction of the bund walls at the corner of Old Northern Road and Roberts Road.	5.1 Low evidence of native vegetation disturbance surrounding the bund walls at the corner of Old Northern Road and Roberts Road.	5.2 Disturbance of native vegetation is recorded during construction of the bund walls



Management requirements	Management measures	Performance/completion criteria	Triggers for remedial action
Fauna management	6. Weeds, pests and feral animals are to be controlled.	6.1 Low evidence of introduction or spread of weed invasion or spread to adjacent areas. 6.2 Low evidence of pests and feral animals in and surrounding the site.	6.3 Weed cover more than 25% over a 3 year monitoring period within any given areas where revegetation has occurred. Note that non-native species purposefully planted to control erosion are excluded from this target. 6.4 Detection of an increase in the number of new pests and feral animal species within and surrounding the site.
	7. Rehabilitated areas to be linked to existing and future areas of vegetation where possible to form a network of wildlife corridors (refer <i>Rehabilitation Plan</i>).	7.1 Connectivity between current and future rehabilitated areas are established adjacent to existing and future areas of vegetation. Patches are not be separated by more than 10 metres.	7.2 Distance between rehabilitated areas and existing and future vegetation patches is greater than 10 m
	8. Rocks of varying sizes are to be spread over rehabilitated areas to provide ground fauna habitat and refuge.	8.1 Evidence of varying sized rocks between 20 mm and greater than 200 mm spread over rehabilitated areas. 8.2 Ground dwelling fauna species of similar diversity to adjacent areas of similar habitat.	8.3 No varying sized rocks between 20 mm and greater than 200 mm spread over rehabilitated areas 8.4 Less ground dwelling fauna similar diversity compared to adjacent areas of similar habitat
	9. Branches and logs of any trees cleared on the site are to be spread within the rehabilitation areas to provide habitat for ground fauna	9.1 Evidence of logs and other fallen timber spread over re rehabilitated areas. 9.2 Ground fauna species of similar diversity to adjacent areas of similar habitat.	9.3 No logs or any other fallen timber spread over re rehabilitated areas. 9.4 Less ground dwelling fauna similar diversity compared to adjacent areas of similar habitat
	10. Consideration to the provision of nest boxes for a range of arboreal fauna to be installed during the establishment of final rehabilitation areas	10.1 On completion of the rehabilitation, a suitably qualified ecologist has determined the requirement on whether nest boxes are required. If nest boxes are required to be installed a nest box management plan has been prepared.	10.2 The final monitoring report on completion of the rehabilitation does not include advice on nest boxes.

Section 9. Monitoring Program

The FFMP specifies that a detailed assessment of rehabilitated areas is to be undertaken by a qualified ecologist annually to assess floristic structure and diversity, robustness and fauna species diversity. This flora and fauna monitoring program outlines the assessment and monitoring of rehabilitated areas that would be conducted to assess the performance of the management measures implemented to minimise impacts from operations.

Ecological monitoring of the management measures implemented as part of the CoA will be conducted and reported on annually for the first 3 years in areas of permanent rehabilitation, as per the FFMP. After this period the monitoring program will be reviewed.

Additional ecological monitoring would also be required if monitoring results detect unforeseen issues (e.g. unexpected threatened species finds) that would require additional management measures to be implemented. Any additional monitoring would assess the performance and effectiveness of these additional management measures until such time as they are demonstrated to be effective. In this circumstance the duration and ecological monitoring methods would be determined in agreement with DPI, National Parks and Wildlife Service and Council.

Table 3 provides the detailed ecological monitoring methodology, timing, frequency, surveys effort and data that will be collected and assessed.

9.1. Monitoring Approach

The monitoring parameters that would be collected and analysed as part of the FFMP are outlined below in *Table 3* and are specifically designed to measure the performance of the management measures outlined in *Table 2*. Data analysis will be qualitative and quantitative, comparing direct results over time and also identifying trends over time.



Table 3. Monitoring of flora and fauna management measures timing, frequency and methodology

Survey type	Performance criteria being monitored	Timing and frequency	Monitoring methods	Data to be collected
<p>Native vegetation monitoring</p>	<ul style="list-style-type: none"> • Demonstrated use of native plant species naturally occurring in the Maroota used in all progressive revegetated and rehabilitated areas. • Low mortality of plants used in progressive revegetation with 75% becoming established 3 years after planting. • Installation of high durability fencing, with low maintenance requirements and suitable for excluding cattle and other livestock, to be installed prior to the completion of revegetation work areas. • Fencing surrounding revegetated and rehabilitated areas are maintained in working condition. • Installation of fencing along the southern fence line and to the north of the site entrance completed during dewatering of the fines ponds and prior to the construction of the new access track. • Vegetation is retained • Low evidence of native vegetation disturbance surrounding the bund walls at the corner of Old Northern Road and Roberts Road. • Weeds, pests and feral animals are to be controlled. 	<ul style="list-style-type: none"> • Annual spring or summer monitoring throughout the rehabilitation areas for the first 3 years in areas of permanent rehabilitation. • The first monitoring session would occur in the first spring or summer season immediately after the first area of the quarry has been rehabilitated. 	<ul style="list-style-type: none"> • A suitably qualified ecologist would conduct a site inspection of rehabilitated areas. • The ecologist would conduct comprehensive and through surveys using the “random meander” method (Cropper 1993) to describe the existing vegetation. • The random meander surveys would involve traversing all areas of rehabilitation to also quantify the extent of disturbance and noxious and environmental weed species present. 	<p>On visual inspection of each rehabilitated area, the following data would be collected:</p> <ul style="list-style-type: none"> • Identity and abundances of all native species present in rehabilitated areas • Identify the extent and quantify any disturbance and /or damage to native vegetation in rehabilitated areas • Identification and abundance of diseased, infected or mortality of native plant species in rehabilitated areas <p>A visual inspection of fencing surrounding rehabilitated areas would be conducted with the following data to be recorded:</p> <ul style="list-style-type: none"> • Date of inspection • Location • The presence and / or extent of any damage to fencing that requires repair • Detail and date that fencing repair took place (if relevant) <p>Conduct visual inspection of rehabilitated areas to identify the presence and extent of noxious and environmental weed infestations with the following data to be recorded:</p> <ul style="list-style-type: none"> • Species of weeds identified



Survey type	Performance criteria being monitored	Timing and frequency	Monitoring methods	Data to be collected
				<ul style="list-style-type: none"> • Extent of infestations, % cover and abundance • Extent of previously identified weed infestations – map if possible
<p>Fauna monitoring</p>	<ul style="list-style-type: none"> • Weeds, pests and feral animals are to be controlled. • Connectivity between current and future rehabilitated areas are established adjacent to existing and future areas of vegetation. Patches are not be separated by more than 10 metres. • Evidence of varying sized rocks between 20 mm and greater than 200 mm spread over rehabilitated areas. • Evidence of logs and other fallen timber spread over re rehabilitated areas. • Ground dwelling fauna species of similar diversity to adjacent areas of similar habitat. • On completion of the rehabilitation, a suitably qualified ecologist has determined the requirement on whether nest boxes are required. If nest boxes are required to be installed a nest box management plan has been prepared. 	<ul style="list-style-type: none"> • Annual spring or summer- monitoring to occur throughout the full extent of the study area. • The first monitoring session would occur in the first spring or summer season immediately after the first area of the quarry has been rehabilitated. 	<ul style="list-style-type: none"> • A suitably qualified ecologist would conduct site inspection of rehabilitated areas / adjacent areas of similar habitat using random meander techniques. • The ecologist would conduct comprehensive and through surveys using the “random meander” method (Cropper 1993) to describe the habitat value of the vegetation for fauna. • The random meander surveys would involve traversing all areas of rehabilitation to identify and quantify the extent of potential fauna habitat. e.g. dreys, dens, burrows, stick nests etc. • If dusk or nocturnal surveys are required to determine if rehabilitated areas are used by nocturnal fauna, surveys would be 	<p>Searches will be conducted for signs of animal activity along each transect and would include searches of:</p> <ul style="list-style-type: none"> • The base of trees for scats • The groundlayer and soil surface for scats and or diggings of foxes and rabbits etc. • Sandy and muddy areas for animal tracks <p>Conduct site inspection of rehabilitated and surrounding vegetated areas to identify habitat connectivity between existing and rehabilitated vegetation patches with the following data to be recorded:</p> <ul style="list-style-type: none"> • Size of rehabilitated vegetation patch • Distance to the nearest existing vegetation patch • Results would be mapped <p>Conduct site survey of rehabilitated areas to identify types and abundance of habitats present, with a particular focus on rock and log habitat. Active searches for ground dwelling fauna would involve looking for active specimens within suitable rock and woody debris habitat within the rehabilitated areas and in adjacent areas of similar habitat. The survey would include:</p>



Survey type	Performance criteria being monitored	Timing and frequency	Monitoring methods	Data to be collected
			<p>conducted by two suitably qualified ecologists.</p>	<ul style="list-style-type: none"> • active or basking reptiles in sunlit areas • sheltering fauna underneath logs and rocks, in rock crevices, under decorticating bark on trees and amongst leaf litter • searches of the soil surface for characteristic diggings of terrestrial mammals (e.g. echidna) and scats <p>At the end of the rehabilitation period, an ecologist would survey the rehabilitated areas and determine whether or not nest boxes would be efficient at improving the habitat value of the site. This would be determined by recording and taking into account:</p> <ul style="list-style-type: none"> • Abundance and size of hollows currently present within and outside rehabilitated areas

Section 10. Annual Reporting

Annual reporting will be completed and detail the results of the monitoring. The annual report will be provided to DPI with the annual review and conditions compliance report for the first 3 years. Annual reports that assess the effectiveness of the performance and completion criteria will include the following information:

- Introduction – background description of the monitoring sessions
- Methodology – description of methodology undertaken including site location and specific survey site locations
- Results and discussion – description of monitoring results and comparison of results to performance and completion criteria over time
- Review of management measures – the effectiveness of each management measure will be reviewed (where appropriate) at the end of the monitoring period based on the whether the performance/completion have been met and whether any remedial actions have been triggered.
- Recommendations – suggestion of adaptive responses and any additional measures potentially required (where appropriate) based on the results of the monitoring session.

Section 11. Emergency Response

Should any works uncover objects they may be potentially significant to either Aboriginal or European heritage, work will cease immediately and the relevant government department (NPWS, the Heritage Office and the Local Aboriginal Land Council) will be contacted.

Should significant flora and fauna be compromised by the site operations, mitigation measures may include;

- i) Establishment of a buffer area around the flora/fauna species or habitat.
- ii) Inclusion of Blue Mountain Mahogany and other Shale-Sandstone Transition Forest species in any landscape/rehabilitation planting of the site.

Section 12. Responsibility

Plant Manager - for organising ecology/rehabilitation surveys and ensuring continued protection of threatened plant species.

Environmental Manager for ensuring the Management Plan is reviewed and updated as required.

All site staff - for undertaking activities with minimal disturbance to tree species and rehabilitated areas.

Appendix A: Consultation

From: [Sarah Burke](#)
To: [Lisa Thomson](#)
Subject: RE: Sand Quarry at Roberts Road Maroota
Date: Wednesday, 1 June 2016 4:24:53 PM

Hi Lisa

I've spoken to one of my colleagues who is the person that quarrying proposals and FFMPs are usually sent to for comment, and given current workloads, OEH doesn't have the capacity to review the updated FFMP.

Thanks for consulting with us.

Regards

Sarah

Sarah Burke | [TL, Compliance & Regulation](#) | Regional Operations Group | L6, 10 Valentine Ave (PO Box 644) Parramatta 2124 | T: 9995 6848 | F: 9895 6548 | M: 0418 299 093 | W: www.environment.nsw.gov.au

From: Lisa Thomson [mailto:Lisa@vgt.com.au]
Sent: Wednesday, 1 June 2016 11:06 AM
To: Sarah Burke
Subject: Sand Quarry at Roberts Road Maroota

Hi Sarah,

Thankyou again for the letter you sent in February 2016 regarding the presence of Acacia bynoeana at the Roberts Road, Maroota sand quarry (HB Resources, now Hodgson Quarries and Plant Hire), your reference DOC16/100063.

A modified consent for that site has triggered a review of the Flora and Fauna Management Plan. Would you like to comment on the updated plan or would you rather nominate an alternative contact within your department?

Regards,

Lisa Thomson

Principal Environmental Consultant
02 4028 6412
0427 334471



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Please consider the environment before printing my email

Lisa Thomson

From: Kristine McKenzie <kmckenzie@thehills.nsw.gov.au>
Sent: Wednesday, 19 October 2016 11:41 AM
To: Lisa Thomson

Hi Lisa,

In regard to your email dated 10 October 2016 in respect to Development Consent 267-11-99 and the requirement of Condition 55 which requires you to consult with Council regarding the Flora and Fauna Management Plan, I provide the following comments:

1. Additional information is required to be provided on Part (c), dot point 3, in regard to planting around the conservation area.
2. Additional information is required to be provided on Part (c), dot point 4, in regard to improving connectivity of existing and future vegetation. In this regard the information provided refers only to separation distances between vegetation and does not adequately address how areas will be linked, actions required to be undertaken such as additional planting, and on-going management.
3. Additional information is required to be provided on Part (d) in regard to on-going management in respect to timing and frequency and monitoring methods. The monitoring should be specific in respect to timing, frequency, time spent on the site, number of persons undertaking the monitoring, how the random meander techniques will be undertaken and similar.

Regards,



Kristine McKenzie | Principal Executive Planner
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